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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/635,178

08/09/2000

Nathan D. Cahill

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PATENT LEGAL STAFF
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EXAMINER

KIBLER, VIRGINIA M

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/635,178

Applicant(s)

CAHILL ET AL.

Examiner

Virginia M Kibler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities: "Dmin" should be identified. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (5,113,081) in view of Bilhorn et al. (5,696,591).

Regarding claim 1, Bryant discloses exposing a region of the element to create a latent image which is substantially uniform across the useful imaging width of the element (Col. 3, lines 13-28; Figure 3), processing the latent image to produce a density signal (Col. 3, lines 29-46; Figure 6), sampling the density signal with a photometric device (Col. 3, lines 47-54; Figures 6-8), and analyzing the sampled data to determine if there are regions where uniformity differs from that of the uniform exposure, if such differences are found they are linear defects (Col. 1, lines 34-49; Col. 4, lines 9-21). Bryant does not disclose analyzing the sampled density data in the widthwise direction. However, choosing a scanning direction is a well known methodology routinely implemented in the art depending on design choice. Bilhorn et al. ("Bilhorn") teaches

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that it is known to analyze the sampled data in the widthwise direction to determine if there are regions where uniformity differs to locate linear defects on a photographic element (Figure 1; Col. 1, lines 13-25; Col. 2, lines 59-67, Col. 3, lines 1-27). Bryant and Bilhorn are combinable because they are from the same field of endeavor of detecting defects in film. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have modified the analysis of the sampled density data disclosed by Bryant to include analyzing the sampled data in the widthwise direction. The motivation for doing so would have been because it is well known in the art and provides for the inspection of defects in a lateral direction across the width (Col. 1, lines 13-25).

Regarding claim 2, Bryant discloses exposing a plurality of regions (Figure 3) and analyzing the sampled data in each region, whereby the likelihood of locating linear defects is enhanced (Figure 7).

Regarding claims 10, Bryant discloses the photographic element as a film strip (Col. 2, lines 63-66).

Regarding claims 11, Bryant discloses the processing step employs a standard photographic process (Col. 3, lines 41-46).

4. Claims 3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (5,113,081) and Bilhorn et al. (5,696,591) as applied to claim 1 above, and further in view of Reem et al. (5,667,944).

Regarding claim 3, Bryant does not appear to recognize exposing a multiplicity of exposure levels varying along the length of the element. However, Reem et al. ("Reem") teaches that it is known to form a multiplicity of exposure levels on a photographic element (Col. 6, lines

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23-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the exposure disclosed by Bryant and Bilhorn to include exposing a multiplicity of exposure levels as taught by Reem because the variations alter the amount of density formed for different levels of exposure and simplifies defect detection (Col. 3, lines 12-20).

Regarding claims 5-7, Bryant does not appear to recognize a specified exposure level. However, Reem teaches that it is known to expose a region of a negative photographic film having a plurality of layers to create a latent image wherein the exposure is high enough to produce a latent image that is developable in all layers of the film and the exposure is less than the exposure at which further increase in exposure no longer results in increased density (Col. 7, lines 27-37), thereby being low enough to produce a latent image that upon development allows detection of any additional density due to a defect. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the exposure level disclosed by Bryant and Bilhorn to include the exposure range taught by Reem because it is a conventional methodology routinely implemented in the art to adjust the level of exposure (Col. 6, lines 34-37).

Regarding claim 8, the arguments analogous to those presented above for claim 7 is applicable to claim 8. While Reem does not appear to expressly state the exposure is sufficient to produce a developed image that is 1.5 above D_{min} , it would have been an obvious matter of design choice to have modified the exposure range disclosed by Reem to specify a particular value within the disclosed range.

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5. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (5,113,081) and Bilhorn et al. (5,696,591) as applied to claim 1 above, and further in view of Kobayashi et al. (5,430,522).

Regarding claims 12-15, Bryant does not appear to recognize employing an alternate photographic process. However, Kobayashi et al. ("Kobayashi") teaches that it is known to process a latent image using an alternative photographic process including employing a dry photographic process using pressure sensitive heat developable film (Col. 1, lines 22-36 and lines 41-50), thereby containing thermal developable chemistry and pressure developable chemistry. Therefore, it would have been obvious to have modified the photographic process disclosed by Bryant and Bilhorn to an alternative photographic process as taught by Kobayashi because the selection of type of photographic process is well known and would be within the level of ordinary skill in the art at the time of the invention.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (5,113,081) and Bilhorn et al. (5,696,591) as applied to claim 1 above, and further in view of Prigent (5,641,971).

Regarding claim 4, Bryant does not appear to recognize averaging the samples of the density signal. However, Prigent teaches that it is known to average the samples of a density signal (Col. 4, lines 51-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the sampling of the density signal disclosed by Bryant and Bilhorn to include averaging as taught by Prigent because the averaging compensates for variations of densities of the film over its length (Col. 4, lines 51-58).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant (5,113,081) and Bilhorn et al. (5,696,591) as applied to claim 1 above, and further in view of Factor (5,745,217).

Regarding claim 9, Bryant does not appear to recognize employing the location of the defect in processing. However, Factor teaches that it is known to employ the location of the defect on a photographic element in processing (Col. 1, lines 27-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the locating defects disclosed by Bryant and Bilhorn to include employing the location in processing as taught by Factor because it can be used to avoid exposure of images in the area containing the defects (Col. 1, lines 31-35).

Response to Arguments

8. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new grounds of rejection.

Conclusion

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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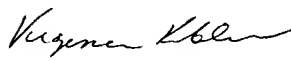
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia M Kibler whose telephone number is (703) 306-4072. The examiner can normally be reached on Mon-Thurs 8:00 - 5:30 and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Virginia Kibler
05/12/04

MEHRDAD DASTOURI
PRIMARY EXAMINER

